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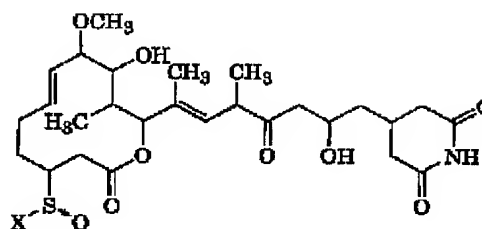
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APPLICANT : NIPPON KAYAKU CO LTD;

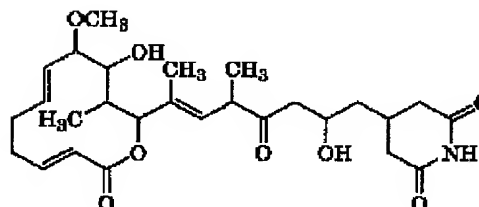
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TITLE : NEW PHYSIOLOGICALLY ACTIVE
SUBSTANCE NK3042 ANALOGUE AND
PRODUCTION AND USE THEREOF



I



II

ABSTRACT : PROBLEM TO BE SOLVED: To obtain a new physiologically active substance which has a cytostatic activity against cancer cells and tumor necrosis factor (TMF α) production-inhibiting activity and is useful on the treatment of cancers or tumors and on the treatment or prevention of diseases such as chronic articular rheumatism and Kawasaki disease.

SOLUTION: An NK30424 analogue of formula I (X is a 1 to 4C lower alkyl, a 1 to 4C lower hydroxyalkyl or the like) or pharmacologically acceptable salt thereof. The compound of formula I is obtained, for example, by culturing a strain such as Streptomyces sp. NA 30424 strain to produce a compound of formula II, collecting the compound of formula II from the culture solution, subjecting the μ -site of the collected α,β -unsaturated lactone of formula II to a Michael addition reaction using the corresponding thiol compound (for example, ethanethiol or 1-mercapto-2-propanol) in the presence of a base such as triethylamine in a polar solvent, and then oxidizing the obtained compound with an oxidizing agent (for example, hydrogen peroxide solution) to oxidize the sulfur atom of the sulfide bond.

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